

SUPPORT FOR THE AMENDMENTS

This Amendment cancels Claims 44-45; and amends Claims 17, 23, 28 and 34. Support for the amendments is found in the specification and claims as originally filed. In particular, support for Claim 17 is found in canceled Claim 44. Support for Claim 28 is found in canceled Claim 45, in the specification at least at pages 36-37, and in Fig. 9A. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 17-43 will be pending in this application. Claims 17 and 28 are independent.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

Conventionally, a fuel container has a multilayered structure that includes an inner layer, an outer layer and an intermediate layer with gasoline barrier properties (i.e., a barrier layer). The fuel container is provided with openings for mounting various components such as an inlet or outlet neck, a connector, and a cap. The components are preferably made of a barrier material for suppressing fuel permeation. However, the present inventors have discovered that when a component made of a barrier material such as EVOH is employed, the expected barrier properties are not obtained.

The present inventors were the first to discover that the fuel in the container vaporizes (permeates) from the portions where the components are attached. The specification at Fig. 5 shows such fuel permeation. Fig. 5 shows a fuel container made of a multilayered structure including a barrier layer 1 and thermoplastic resin layers 2 and 3, in which a component 6 is attached to an opening of its body. At this opening portion, fuel can evaporate and pass through the layers that are located on the outside with respect to the barrier layer 1 (in this

case, the outer layer 3 made of a thermoplastic resin (B) and an adhesive layer 10) easily.

See specification at page 11, line 15 to page 12, line 19.

The present inventors were the first to realize that the permeation of fuel through the portions where components are attached is a serious problem.

To address this problem, the fuel containers featured in independent Claims 17 and 28 each has a layered structure comprising at least a barrier layer made of a barrier resin (A), and an outer layer made of a thermoplastic resin (B) that is different from the barrier resin (A).

According the present invention, fuel permeation at the peripheral portion of the opening (i.e., fuel permeation through the cutting face of the layer that is located on the outside with respect to the barrier resin (A)) is prevented, so that the fuel container of the present invention has high barrier properties with respect to the fuel.

Claims 17-43 are rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,547,096 ("Kleyn") in view of U.S. Patent No. 6,033,749 ("Hata"). In addition, Claims 44-45 are rejected under 35 U.S.C. § 103(a) over Kleyn in view of Hata.

Kleyn discloses an electroplated, polymeric fuel cell fabricated of inner and outer shells. The outer shell is an assembly of outer shell halves joined together along peripheral flanges. Kleyn at Abstract, lines 1-3. A layer of copper, a layer of nickel, and a layer of chrome are successively electroplated to either or both of the interior and exterior surfaces of the outer shell halves to prevent permeation of fuel through the shell. Kleyn at Abstract, lines 3-7; column 1, lines 53-61. Thus, Kleyn recognizes that fuel permeation occurs through the body of the fuel container, but fails to recognize that fuel permeation occurs at the peripheral portion of an opening through the fuel container (i.e., fuel permeation through the cutting face of the outer shell).

Fig. 2 of Kleyn is reproduced below.

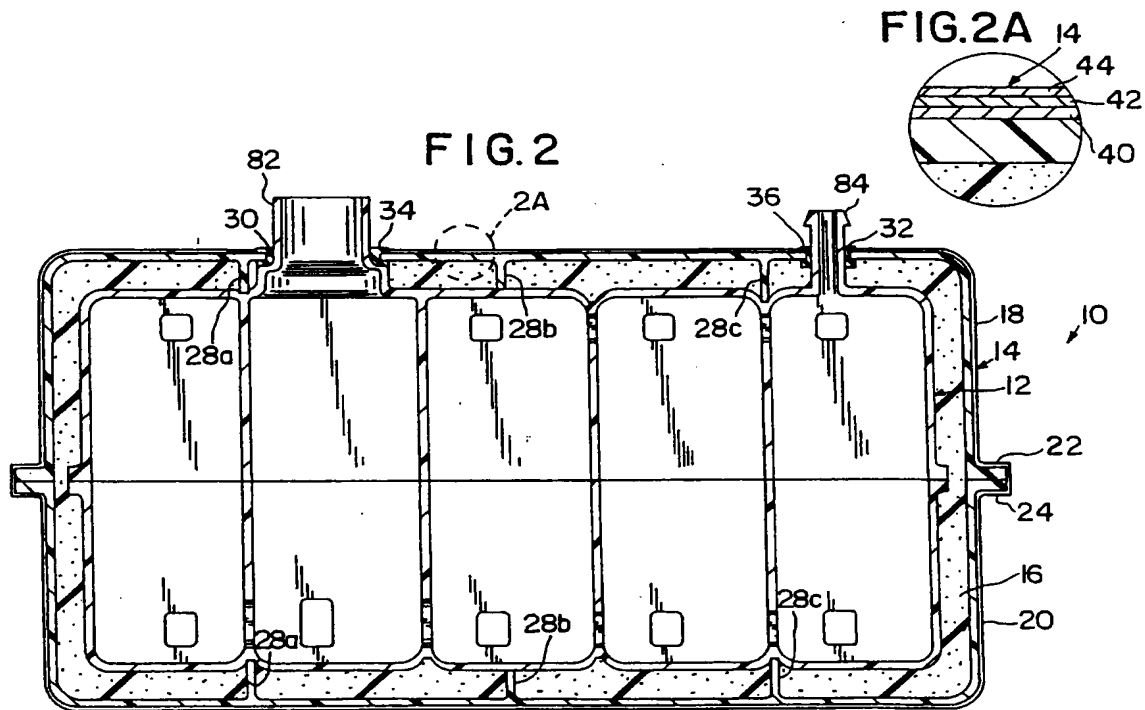


Fig. 2 of Kleyn shows inner shell 12 includes a filler neck 82 and an outlet neck 84 which pass through to apertures 30, 32 in outer shell 14. Enclosure gaskets 34, 36 are sufficiently compressed between outer shell 14 (outer shell half 18) and necks 82, 84 to provide a leak-tight seal. Kleyn at column 3, lines 1-12. The Final Rejection asserts that gaskets 34, 36 correspond to the barrier member of independent Claim 17. Final Rejection at page 2, section 2.

Kleyn's filler neck 82 and outlet neck 84 separate gaskets 34, 36 from the openings through the body of Kleyn's fuel container. Filler neck 82 and outlet neck 84 are exposed to the opening space through the fuel container. However, gaskets 34, 36 are not exposed to the opening space through the fuel container.

Thus, Kleyn fails to suggest the independent Claim 17 limitations that "the barrier member is exposed to the opening space, or the barrier member and the barrier layer are exposed to the opening space" or the independent Claim 45 limitation that "the barrier layer is exposed to the opening space".

When a component (e.g., a lid) having gas barrier properties is mounted onto the opening portion of the structure shown in the specification at Fig. 7, a vaporized fuel permeation path is not formed around the opening portion. Thus, excellent gas barrier properties can be obtained. In contrast, when such a lid is mounted onto Kleyn's filler neck 82 and outlet neck 84, vaporized fuel can permeate through the filler neck 82 or outer neck 84. Thus, Kleyn's fuel container does not have sufficient gas barrier properties.

Hata fails to remedy the deficiencies of Kleyn. The Final Rejection at page 2, section 2 (and Office Action dated July 17, 2006, at page 2, line 19) admits that "Kleyn does not disclose an (sic) interior barrier layer". The Final Rejection relies on Hata for disclosing this feature.

The cited prior art also fails to suggest the independent Claim 28 limitations that "the fuel container is provided with an opening, a cut-out or a groove is provided around the opening in an outer surface of the outer layer of the fuel container such that the cut-out or the groove does not extend completely through the outer layer, and the cut-out or the groove is covered or filled with a barrier member made of a barrier material (C)". Because Kleyn's apertures 30 and 32 pass completely through outer wall 14, neither one of Kleyn's apertures 30 and 32 is a "cut-out".

Because Kleyn in view of Hata fails to suggest all the limitations of independent Claims 17 and 28, the prior art rejection should be withdrawn.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

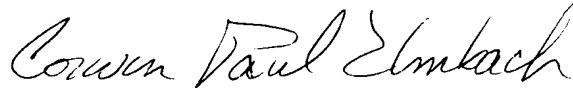
Should the Examiner believe that anything is further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

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Respectfully submitted,

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A handwritten signature in cursive script, reading "Corwin Paul Umbach", written over a horizontal line.

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